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0		2002/11/7	USPAT; US-PGPUB; EPO; JPO; DERWENT	(encoding adj sequence) same 4	0	L8	BRS	ω
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FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA' ENTERED AT

11:34:13 ON 16 NOV 2002

- L1 14036 S CALCINEURIN
- L2 28 S L1 (P) (ENDOGENOUS INHIBITOR)
- L3 18 S CALCIPRESSIN
- L4 229 S CSP-1
- L5 0 S L4 (P) L2
- L6 2 S L3 (P) (NUCLEOTIDE OR ENCODING SEQUENCE)
- L7 2 DUPLICATE REMOVE L6 (0 DUPLICATES REMOVED)
- L8 6 DUPLICATE REMOVE L3 (12 DUPLICATES REMOVED)
- L9 6 S L8 NOT L7

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FILE 'HOME' ENTERED AT 11:33:50 ON 16 NOV 2002

=> file medline caplus biosis embase scisearch agricola TOTAL COST IN U.S. DOLLARS SINCE FILE SESSION ENTRY 0.21 0.21 FULL ESTIMATED COST FILE 'MEDLINE' ENTERED AT 11:34:13 ON 16 NOV 2002 FILE 'CAPLUS' ENTERED AT 11:34:13 ON 16 NOV 2002 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2002 AMERICAN CHEMICAL SOCIETY (ACS) FILE 'BIOSIS' ENTERED AT 11:34:13 ON 16 NOV 2002 COPYRIGHT (C) 2002 BIOLOGICAL ABSTRACTS INC. (R) FILE 'EMBASE' ENTERED AT 11:34:13 ON 16 NOV 2002 COPYRIGHT (C) 2002 Elsevier Science B.V. All rights reserved. FILE 'SCISEARCH' ENTERED AT 11:34:13 ON 16 NOV 2002 COPYRIGHT (C) 2002 Institute for Scientific Information (ISI) (R) FILE 'AGRICOLA' ENTERED AT 11:34:13 ON 16 NOV 2002 -> s calcineurin 14036 CALCINEURIN => s l1 (p) (endogenous inhibitor) 28 L1 (P) (ENDOGENOUS INHIBITOR) => s calcipressin 18 CALCIPRESSIN => s csp-1 229 CSP-1 => s 14 (p) 120 L4 (P) L2 => s 13 (p) (nucleotide or encoding sequence) 2 L3 (P) (NUCLEOTIDE OR ENCODING SEQUENCE) => duplicate remove 16 PROCESSING COMPLETED FOR L6 2 DUPLICATE REMOVE L6 (0 DUPLICATES REMOVED) => d 17 1-2 ibib abs L7 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2002 ACS ACCESSION NUMBER: 2002:441566 CAPLUS DOCUMENT NUMBER: 137:245197 TITLE: The DSCR1 (Adapt78) isoform 1 protein calcipressin 1 inhibits calcineurin and protects against acute calcium-mediated stress damage, including transient oxidative stress AUTHOR(S): Ermak, Gennady; Harris, Cathryn D.; Davies, Kelvin J. Ethel Percy Andrus Gerontol. Cent., Div. Mol. CORPORATE SOURCE: Computational Biol., Univ. South. California, Los

D. CUMENT TYPE: Cournal LANGUAGE: English

AB Although DSCR1 (Adapt78) has been assocd, with successful adaptation to oxidative of recommendation to Almostone and malmount of the commendation of the commendati

contradictory findings has been tested. In fact, DSCR1 (Adapt78) has not yet been proved to provide rotection against acute oxidate stress or calcium stress. We have addressed this question using cross-adaptation to H2O2 and the calcium ionophore A23187, stable DSCR1 (Adapt78) transfection and over-expression in hamster HA-1 cells, 'tet-off' regulated DISR1 (Adapt78) isoform transgene expression in human PC-12 cells, and DSCR1 (Adapt78) antisense oligonucleotides to test the ability of the DSCR1 (Adapt78) protein product calcipressin 1 (a calcineurin inhibitor) to protect against oxidative stress and calcium stress. Under all conditions, resistance to oxidative stress and calcium stress increased as a function of DSCR1 (Adapt78)/calcipressin 1 expression and decreased as gene/protein expression diminished. We conclude that cells may transiently use increased expression of the DSCR1 (Adapt78) gene product calcipressin 1 to provide short-term protection against acute oxidative stress and other calcium-mediated stresses whereas chronic overexpression may be assocd. with Alzheimer disease progression.

REFERENCE COUNT:

THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS 42 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 2 OF 2 CAPLUS COPYRIGHT 2002 ACS 2000:633308 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER:

CORPORATE SOURCE:

134:1784

TITLE:

SOURCE:

AUTHOR(S):

Identification and characterization of a highly

conserved calcineurin binding protein,

CBP1/calcipressin, in Cryptococcus neoformans

Gorlach, Jenifer; Fox, Deborah S.; Cutler, N. Shane; Cox, Gary M.; Perfect, John R.; Heitman, Joseph

Departments of Genetics, Medicine, Duke University

Medical Center, Durham, NC, 27710, USA EMBO Journal (2000), 19(14), 3618-3629

CODEN: EMJODG; ISSN: 0261-4189

PUBLISHER: Oxford University Press DOCUMENT TYPE:

Journal LANGUAGE: English

Calcineurin is the conserved target of the immunosuppressants cyclosporin A and FK506. Using the yeast two-hybrid system, we identified a novel calcineurin binding protein, CBP1, from the pathogenic fungus Cryptococcus neoformans. We show that CBP1 binds to calcineurin in vitro and in vivo, and FKBP12-FK506 inhibits CBP1 binding to calcineurin. Cryptococcus neoformans cbp1 mutant strains exhibit modest defects in growth under stress conditions and virulence, similar to but less severe than the phenotypes of calcineurin mutants. Saccharomyces cerevisiae mutants lacking the CBP1 homolog RCN1 are, like calcineurin mutants, sensitive to lithium cation stress. CBP1 shares a central peptide sequence motif, SPPxSPP, with related proteins in S.cerevisiae, Schizosaccharomyces pombe, Drosophila melanogaster, Caenorhabditis elegans and humans, and peptides contg. this motif altered calcineurin activity in vitro. Interestingly, the human CBP1 homolog DSCR1 is encoded by the Down's syndrome candidate region interval on chromosome 21, is highly expressed in the heart and central nervous system, and may play a role in calcineurin functions in

heart development, neurite extension and memory.

REFERENCE COUNT: 72 THERE ARE 72 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L1

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FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA' ENTERED AT 11:34:13 ON 16 NOV 2002 14036 S CALCINEURIN

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6 L8 NOT L7

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ANSWER 1 OF 6 MEDLINE

ACCESSION NUMBER: 2002300827 MEDLINE

22035335 PubMed ID: 12039863 DOCUMENT NUMBER:

The DSCR1 (Adapt78) isoform 1 protein ***calcipressin*** TITLE:

> 1 inhibits calcineurin and protects against acute calcium-mediated stress damage, including transient

oxidative stress.

Ermak Gennady; Harris Cathryn D; Davies Kelvin J A AUTHOR:

Ethel Percy Andrus Gerontology Center, and Division of CORPORATE SOURCE:

Molecular and Computational Biology, University of Southern

California, Los Angeles, California 90089-0191, USA.

AG16256 (NIA) CONTRACT NUMBER:

FASEB JOURNAL, (2002 Jun) 16 (8) 814-24. SOURCE:

Journal code: 8804484. ISSN: 1530-6860.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200206

Entered STN: 20020604 ENTRY DATE:

> Last Updated on STN: 20020611 Entered Medline: 20020607

Although DSCR1 (Adapt78) has been associated with successful adaptation to oxidative stress and calcium stress and with devastating diseases such as Alzheimer's and Down syndrome, no rationale for these apparently contradictory findings has been tested. In fact, DSCR1 (Adapt78) has not yet been proved to provide protection against acute oxidative stress or calcium stress. We have addressed this question using cross-adaptation to H2O2 and the calcium ionophore A23187, stable DSCR1 (Adapt78) transfection and overexpression in hamster HA-1 cells, 'tet-off' regulated DSCR1 (Adapt78) isoform 1 transgene expression in human PC-12 cells, and DSCR1 (Adapt78) antisense oligonucleotides to test the ability of the DSCR1 (Adapt78) protein product ***calcipressin*** 1 (a calcineurin inhibitor) to protect against oxidative stress and calcium stress. Under all conditions, resistance to oxidative stress and calcium stress increased as a function of DSCR1 (Adapt78) / ***calcipressin*** expression and decreased as gene/protein expression diminished. We conclude that cells may transiently use increased expression of the DSCR1 (Adapt78) gene product ***calcipressin*** 1 to provide short-term protection against acute oxidative stress and other calcium-mediated stresses, whereas chronic overexpression may be associated with Alzheimer disease progression.

ANSWER 2 OF 6 MEDLINE

2000436191 ACCESSION NUMBER: MEDLINE

DOCUMENT NUMBER: 20359261 PubMed ID: 10899116

TITLE:

Identification and characterization of a highly conserved

calcineurin binding protein, CBP1/ ***calcipressin*** ,

in Cryptococcus neoformans.

AUTHOR: Gorlach J; Fox D S; Cutler N S; Cox G M; Perfect J R;

CORPORATE SOURCE: Departments of Genetics, Medicine, Microbiology,

Pharmacology and Cancer Biology, and The Howard Hughes Medical Institute Duke University Medical Center

EMBO JOURNAL, 2000 Jul 17 19 14 3618 29. SOURCE:

Journal code: 8208664. ISSN: 0261-4189. ল্যাক্ট ম্যালন সভাৱ ৮০ৰ লগতে এক ভ

PUBL COUNTRY! DAN WARES

Priority Journals FILE SEGMENT: 200009

ENTRY MONTH: Entered STN: 20000928 ENTRY DATE:

> Last Updated on STN: 20000928 Entered Medline: 20000918

Calcineurin is the conserved target of the immunosuppressants cyclosporin AB A and FK506. Using the yeast two-hybrid system, we identified a novel calcineurin binding protein, CBP1, from the pathogenic fungus Cryptococcus neoformans. We show that CBP1 binds to calcineurin in vitro and in vivo, and FKBP12-FK506 inhibits CBP1 binding to calcineurin. Cryptococcus neoformans cbp1 mutant strains exhibit modest defects in growth under stress conditions and virulence, similar to but less severe than the phenotypes of calcineurin mutants. Saccharomyces cerevisiae mutants lacking the CBP1 homolog RCN1 are, like calcineurin mutants, sensitive to lithium cation stress. CBP1 shares a central peptide sequence motif, SPPxSPP, with related proteins in S.CEREVISIAE:, Schizosaccharomyces pombe, Drosophila melanogaster, Caenorhabditis elegans and humans, and peptides containing this motif altered calcineurin activity in vitro. Interestingly, the human CBP1 homolog DSCR1 is encoded by the Down's syndrome candidate region interval on chromosome 21, is highly expressed in the heart and central nervous system, and may play a role in calcineurin functions in heart development, neurite extension and memory.

L9 ANSWER 3 OF 6 MEDLINE

ACCESSION NUMBER: 2000386788 MEDLINE

DOCUMENT NUMBER: 20347037 PubMed ID: 10887154

A conserved family of calcineurin regulators. TITLE:

AUTHOR: Kingsbury T J; Cunningham K W

CORPORATE SOURCE: Department of Biology, Johns Hopkins University, Baltimore,

MD 21218, USA.

CONTRACT NUMBER: GM53082 (NIGMS)

SOURCE: GENES AND DEVELOPMENT, (2000 Jul 1) 14 (13) 1595-604.

Journal code: 8711660. ISSN: 0890-9369.

Journal code: 8711660. ISSN: 0890-9
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200008

ENTRY DATE: Entered STN: 20000818

> Last Updated on STN: 20000818 Entered Medline: 20000804

AΒ The protein phosphatase calcineurin mediates many cellular responses to calcium signals. Using a genetic screen in yeast, we identified a new family of proteins conserved in fungi and animals that inhibit calcineurin function when overexpressed. Overexpression of the yeast protein Rcn1p or the human homologs DSCR1 or ZAKI-4 inhibited two independent functions of calcineurin in yeast: The activation of the transcription factor Tcnlp and the inhibition of the H(+)/Ca(2+) exchanger Vcx1p. Purified recombinant Rcn1p and DSCR1 bound calcineurin in vitro and inhibited its protein phosphatase activity. Signaling via calmodulin, calcineurin, and Tcn1p induced Ronlp expression, suggesting that Ronlp operates as an endogenous feedback inhibitor of calcineurin. Surprisingly, rcn1 null mutants exhibited phenotypes similar to those of Rcn1p-overexpressing cells. This effect may be due to lower expression of calcineurin in rcn1 mutants during signaling conditions. Thus, Rcnlp levels may fine-tune calcineurin signaling in yeast. The structural and functional conservation between

Rcn1p and DSCR1 suggests that the mammalian Rcn1p-related proteins, termed ***calcipressins*** , will modulate calcineurin signaling in humans and potentially contribute to disorders such as Down Syndrome.

ANSWER 4 OF 6 CAPLUS COPYRIGHT 2002 ACS ACCESSION NUMBER: 2002:642908 CAPLUS

Cunns Hopeins Univi, Eastimbre, ML, USA CukbokAlh cour 'r:

SOURCE: 2002 165 pp. Avail.: UMI, Order No. DA3028234

From: Diss. Abstr. Int., B 2002, 62(10), 4311

Dissertation DOCUMENT TYPE:

DAN YEAR

That's area

ANSWER 5 OF 6 BIOSIS CO IGHT 2002 BIOLOGICAL ABSTRACTS L9 ACCESSION NUMBER: 2002:275023 BIOSIS PREV200200275023 DOCUMENT NUMBER: Transgenic overexpression of ***calcipressin*** TITLE: inhibits angiotensin II and thyroxine-induced cardiac hypertrophy. Kaji, Eugene H. (1); Ryeom, Sandra; Wu, Justina C.; McKeon, AUTHOR(S): Frank D. CORPORATE SOURCE: (1) Harvard Sch of Public Health, Boston, MA USA Circulation, (October 23, 2001) Vol. 104, No. 17 SOURCE: Supplement, pp. II.280. http://circ.ahajournals.org/. print. Meeting Info.: Scientific Sessions 2001 of the American Heart Association Anaheim, California, USA November 11-14, 2001 ISSN: 0009-7322. DOCUMENT TYPE: Conference LANGUAGE: English ANSWER 6 OF 6 SCISEARCH COPYRIGHT 2002 ISI (R) ACCESSION NUMBER: 2001:936740 SCISEARCH THE GENUINE ARTICLE: 487UW TITLE Transgenic overexpression of ***calcipressin*** inhibits angiotensin II and thyroxine-induced cardiac hypertrophy Kaji E H (Reprint): Ryeom S; Wu J C; McKeon F D AUTHOR: CORPORATE SOURCE: Harvard Univ, Sch Publ Hlth, Boston, MA 02115 USA; Harvard Univ, Sch Med, Boston, MA USA; Massachusetts Gen Hosp, Boston, MA 02114 USA COUNTRY OF AUTHOR: SOURCE: CIRCULATION, (23 OCT 2001) Vol. 104, No. 17, Supp. [S], pp. 280-280. MA 1346. Publisher: LIPPINCOTT WILLIAMS & WILKINS, 530 WALNUT ST, PHILADELPHIA, PA 19106-3621 USA. ISSN: 0009-7322. DOCUMENT TYPE: Conference; Journal LANGUAGE: English REFERENCE COUNT: => d his (FILE 'HOME' ENTERED AT 11:33:50 ON 16 NOV 2002) FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA' ENTERED AT 11:34:13 ON 16 NOV 2002 14036 S CALCINEURIN 28 S L1 (P) (ENDOGENOUS INHIBITOR)

L1L2L3 18 S CALCIPRESSIN 229 S CCD 1 1.4 0 S L4 (P) L2 L5

2 S L3 (P) (NUCLEOTIDE OR ENCODING SEQUENCE) L6 L72 DUPLICATE REMOVE L6 (0 DUPLICATES REMOVED) 6 DUPLICATE REMOVE L3 (12 DUPLICATES REMOVED) L86 S L8 NOT L7

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